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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/352,422	07/12/1999	EIJI IWATA	SONY-P9799	2228

7590 12/20/2001

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EXAMINER

VO, TUNG T

ART UNIT	PAPER NUMBER
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2613

DATE MAILED: 12/20/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/352,422

Applicant(s)

IWATA, EIJI

Examiner

Tung T. Vo

Art Unit

2613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Continued Prosecution Application

1. The request filed on 11/19/01 for a Continued Prosecution Application (CPA) under 37 CFR 1.53(d) based on parent Application No. 09/352,422 is acceptable and a CPA has been established. An action on the CPA follows.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe et al. (US 5,675,331) in view of Allen et al. (US 5,583,500).

Re claims 10 and 17, Watanabe discloses a decoding apparatus (fig.1) comprises a multiprocessor system (fig. 1) comprising plurality of signal processing devices, each of the signal processing devices comprising: a master processor (5 of fig. 1) is a variable length decoding means for successively carrying out variable length decoding on variable length coded data blocks (fig. 5), wherein the coded data block is coded by a variable length coder (col. 4, lines 48-50) to obtain fixed length encode data blocks; a slave processor (6 of fig. 1) is a fixed length decoder for fixed length decoding said fixed length encoded data block, where the fixed length encoded data is encoded by a fixed length coder (col. 4, lines 57-60); wherein the master

Art Unit: 2613

and slave processors are executing in parallel the fixed length decoding and variable length decoding (col. 3, lines 712).

Watanabe further teaches the decoding circuit (4-6 of fig. 1) for different types of codes are provided in parallel to each other (col. 3, lines 7-12), this would suggest that the decoding circuits for performing DCT coefficient decoding (4 of fig. 1), variable length decoding (5 of fig. 1), and fixed length decoding (6 of fig. 1) in parallel.

Re claims 11-13 and 18, Watanabe further discloses the variable decoding means detects completion of variable length coding of a current data block and start variable length coding of a subsequent data block (col. 8, lines 1-41; fig. 12); wherein the each of signal processing devices performs both the variable length and the fixed length decoding of a data allotted to it (col. 10, lines 45 through col. 11, lines 1-40).

Re claims 14-16, and 19, Watanabe discloses the decoders (4-6) in figures 3-5 to perform the variable and the fixed decoding of MPEG stream. Watanabe further discloses the operations in the decoders (4-6) would comprise an inverse quantizing means (IQ/IDCT, X5), an inverse transform means (X5), an image generating means (col. 15, lines 36-37), a motion compensation processing means (X6) for carrying out motion compensation processing based on at least one of the inverse transformed data blocks and the image data block to generate the reference image (col. 15, lines 4-45). Watanabe would also teach the data blocks are macroblocks (fig. 12), and the transform means is a discrete cosine transform (DCT) to perform DCT coefficients (col. 15, lines 9-10).

Art Unit: 2613

Re claims 1-9, it is noted that Watanabe teaches the decoders (4-6) for decoding the variable and the fixed length codes, where the encoded data blocks are encoded by the variable and the fixed length coders as suggested by Watanabe (col. 5, lines 48-50, 59-60). It is well known in the art that the encoding process is a reversible of the decoding process. Therefore, it would have been obvious to one of ordinary skill in the art to use the suggestion of Watanabe for constructing the encoders in the same arrangement as claimed for the same purpose of encoding a input signal in parallel of the variable and the fixed length codes of a data block to provided a quality encoded image to the decoders. Doing so would implement the encoder which allows the processing of the next code to be changed in accordance with a code by adopting a simple and reasonable circuit configuration where codes to be encoded comprise variable length codes mixed with fixed length codes, and possible to reduce size of the circuit.

Furthermore, Watanabe suggests the encoders would obvious be used to encode the data block above but Watanabe fails to particularly disclose the encoders for encoding a data block in both variable and fixed length encoding as specified in claims 1 and 7. However, Allen teaches a method and apparatus for variable and fixed length of encoding and decoding data in parallel (figs. 2A and 18), so the encoders (fig. 18) is encoding the fixed and variable data signals complying a MPEG and/or JPEG standard. Taking the respective teachings of Watanabe and Allen together as a whole, it would have been obvious to one of ordinary skill in the art to modify the encoders (fig. 18) of Allen into the system of Watanabe to advantageous accommodate high bandwidth and obtain more effective bandwidths out of moderately fast channel lien ISDN, CDROM, and SCSI.

Art Unit: 2613

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See the previous Office Action, Paper No. 11.

Contact Information

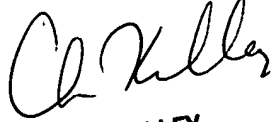
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung T. Vo whose telephone number is (703) 308-5874. The examiner can normally be reached on 6:30 AM 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris. Kelley can be reached on (703) 305-4856. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 303-1700.

Tung T. Vo
Examiner
Art Unit 2613

T. Vo
December 6, 2001


CHRIS KELLEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600